

WHAT IS CLAIMED IS:

1. A refrigerator comprising:

a cold air duct for receiving cold air circulating insides of a refrigerating chamber

5 and a freezing chamber;

an evaporator in the cold air duct;

at least one defrosting heater in the cold air duct for selective emission of heat;

a fan in the cold air duct, for selective direction of the cold air in upward or
downward;

10 a motor for driving the fan; and

open/close means for closing a space having the evaporator, the defrosting heater,
and the fan positioned therein, selectively.

2. The refrigerator as claimed in claim 1, wherein the open/close means includes;

15 a first open/close part on an upper side of the space, and

a second open/close part on a lower side of the space.

3. The refrigerator as claimed in claim 2, wherein the first and second open/close
parts each includes;

20 a supporting plate having a plurality of openings, and

a plurality of rotating plates each having one side coupled to the supporting plate
with a hinge, and the other side rotatable upward by a predetermined angle.

4. The refrigerator as claimed in claim 3, wherein the rotating plate is constructed
25 from a thin plate, so that the rotating plate is rotated upward by a predetermined angle to open
the opening when the cold air is directed upward by the fan.

5. The refrigerator as claimed in claim 3, wherein the rotating plate has a size enough to cover an upper circumference of the opening for closing the opening when the cold air is directed downward by the fan.

5

6. The refrigerator as claimed in claim 3, wherein the rotating plate is held by a rear end of an adjacent rotating plate and the supporting plate, for preventing the rotating plate from rotating downward.

10 7. The refrigerator as claimed in claim 1, wherein the fan is positioned over the evaporator.

8. The refrigerator as claimed in claim 1, wherein the defrosting heater is positioned between the fan and the evaporator.

15

9. The refrigerator as claimed in claim 1, wherein the defrosting heater is fabricated as one unit with the fan.

10. The refrigerator as claimed in claim 1, wherein the defrosting heater includes;
20 a hot wire for functioning as a resistance body connected to a power source for emission of heat, and
a film of an electrical insulating material surrounding an outside of the hot wire.

11. The refrigerator as claimed in claim 10, wherein the evaporator includes;
25 a refrigerant pipe having refrigerant flowing therethrough, and
fins on an outside of the refrigerant pipe.

12. A refrigerator comprising:

a cold air duct for receiving cold air circulating insides of a refrigerating chamber and a freezing chamber;

5 an evaporator in the cold air duct, the evaporator having refrigerant pipes having refrigerant flowing therethrough, and fins on outsides of the refrigerant pipes, and at least one defrosting heater in contact with the fins for selective emission of heat.

13. The refrigerator as claimed in claim 12, wherein the defrosting heater includes;

10 a hot wire for functioning as a resistance body connected to a power source for emission of heat, and

a film of an electrical insulating material surrounding an outside of the hot wire.

14. The refrigerator as claimed in claim 13, wherein the hot wire is a carbon hot wire

15 bent closely.

15. The refrigerator as claimed in claim 13, wherein the film is formed of PET material.

20 16. The refrigerator as claimed in claim 12, wherein the defrosting heater is a PTC device.

17. The refrigerator as claimed in claim 12, wherein the defrosting heater is attached to at least one surface of the fins.

25 18. The refrigerator as claimed in claim 12, wherein the defrosting heater is attached

to one side circumferences of the fins.

19. The refrigerator as claimed in claim 12, wherein the defrosting heater has pass through holes for pass through of the refrigerant pipes.

5

20. The refrigerator as claimed in claim 12, wherein the fins of the evaporator have insertion slots in side surfaces for inserting the defrosting heater.

21. The refrigerator as claimed in claim 12, further comprising open/close means provided to an upper portion and a lower portion of the space for selective closure of the space having the evaporator and the defrosting heater positioned therein.

22. The refrigerator as claimed in claim 21, further comprising:
a fan in the cold air duct for selective direction of the cold air to upward or
downward; and
a motor for driving the fan.

15

23. The refrigerator as claimed in claim 22, wherein the open/close part includes;
a supporting plate having a plurality of openings, and
a plurality of rotating plates each having one side coupled to one side of the
supporting plate with a hinge, and the other side rotatable upward by a predetermined angle.

20

24. The refrigerator as claimed in claim 23, wherein the rotating plate is constructed from a thin plate, so that the rotating plate is rotated upward by a predetermined angle to open the opening when the cold air is directed upward by the fan.

25

25. The refrigerator as claimed in claim 23, wherein the rotating plate has a size enough to cover an upper circumference of the opening for closing the opening when the cold air is directed downward by the fan.